

## Two new species of the genera *Chrysso* and *Achaearanea* (Araneae: Theridiidae) from the Nansei Islands, Japan

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**Abstract** — Two new species of the family Theridiidae are described from the Nansei Islands, Japan, under the names, *Chrysso sasaki* and *Achaearanea projectivulva*.

**Key words** — *Achaearanea*, *Chrysso*, Japan, Nansei Islands, new species, Theridiidae.

Nine species of the genus *Chrysso* and 12 species of the genus *Achaearanea* have been recorded from Japan (Yoshida 1993, 1996, 1998, 2000). For these genera, recently, a few additional species were collected from the Nansei Islands, Japan. After the close examination, they were recognized as new species.

The holotypes and an allotype of the new species are deposited in the collection of the Department of Zoology of the National Science Museum, Tokyo, and the paratypes are preserved in my private collection.

Abbreviations used in this paper are as follows: ALE, anterior lateral eye(s); AME, anterior median eye(s); MOA, median ocular area; NSMT-Ar, the Araneae Collection of the Department of Zoology of National Science Museum, Tokyo; PLE, posterior lateral eye(s); PME, posterior median eye(s).

I wish to express my sincere thanks to Mr. Takeshi Sasaki, Okinawa, Dr. Hozumi Tanaka, Hyogo, and Mr. Akio Tanikawa, Kanagawa, for offering valuable specimens for the present study.

### *Chrysso sasaki* new species (Figs. 1–5)

*Female* (holotype). Body length 4.32 mm. Carapace length 1.47 mm; width 1.21 mm. Abdomen length 2.79 mm; width 2.59 mm. First leg: femur 3.53 mm; patella and tibia 3.63 mm; metatarsus 3.95 mm; tarsus 0.95 mm. Second patella and tibia 2.00 mm; third patella and tibia 1.21 mm; fourth patella and tibia 2.42 mm.

Carapace oval and flattened with a triangular median furrow. Diameter of AME smaller than the others (2:3). AME seven-fourths their diameter apart and five-fourths

from ALE. PME four-thirds their diameter apart and one from PLE. MOA, anterior width: posterior width: length=9:10:7 in the ratio. First legs the longest; the length of first patella and tibia is about 2.5 times the carapace length. Abdomen nearly circular, posterior end projecting above the spinnerets (Figs. 1–2). Colulus absent. Genital organ as shown in Figs. 3–4: two openings distinct; seminal receptacles large and oval; ducts short.

Coloration. Basal color of body light yellowish green in alive, yellowish white in alcohol. Eyes on dark bases. First patellae with a small prolatero-distal black spot; first metatarsi with a distal black ring; fourth metatarsi with a large prolatero-distal black spots. Dorsum of abdomen with some median large and a pair of marginal wide white pigments, and with four pairs of small black spots as shown in Fig. 1.

*Male* (allotype). Body length 3.16 mm. Carapace length 1.42 mm; width 1.24 mm. Abdomen length 1.71 mm; width 1.11 mm. First leg: femur 4.21 mm; patella and tibia 4.32 mm; metatarsus 5.21 mm; tarsus 1.00 mm. Second patella and tibia 2.47 mm; third patella and tibia 1.32 mm; fourth patella and tibia 2.47 mm.

Diameters of AME: ALE: PME: PLE=6:8:7:6 in the ratio. AME six-ninths their diameter apart and one from ALE. PME ten-sevenths their diameter apart and eight-sevenths from PLE. MOA, anterior width: posterior width: length=10:11:7 in the ratio. Legs long; the length of first patella and tibia is about three times the carapace length. Abdomen triangular. Palpal organ as shown in Fig. 5: tarsi nearly as long as wide; embolus short; conductor with a membranous projection.

Carapace medially with a wide and dusky band. Black flecks of legs indistinct. Abdomen with large

black flecks and without white pigments.

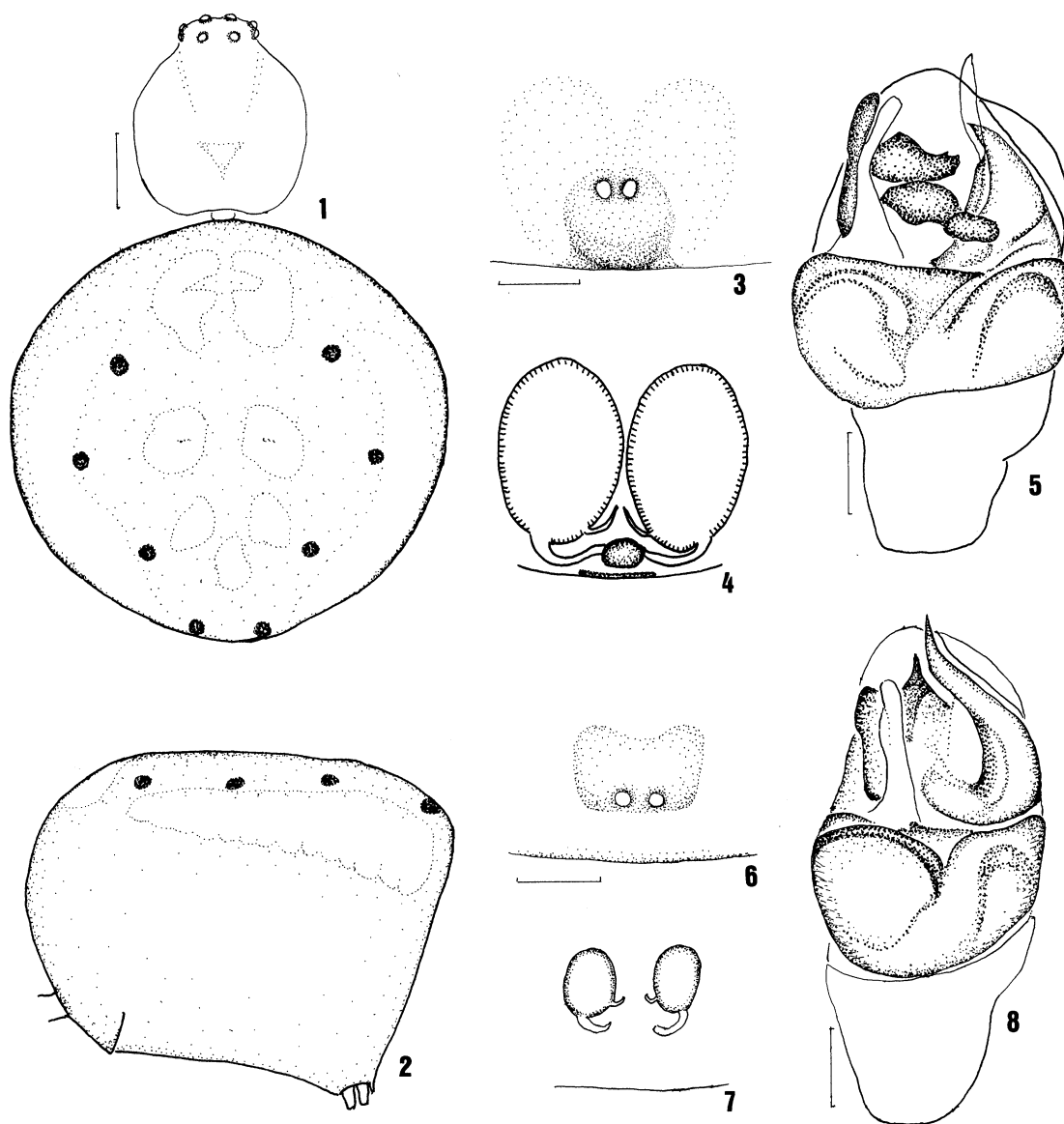
Other characters as same as in the female holotype.

*Type series.* Holotype: ♀, and allotype: ♂, Oku-no-sanso of Univ. of the Ryukyus, Oku, Kunigami-son, Kunigami-gun, Okinawa Is., Okinawa Pref., Japan, 28-III-1999, A. Tanikawa leg. (NSMT-Ar 4550-4551). Paratypes: 1 ♀, 2-IV-1997, T. Sasaki leg., 3 ♀, 1-IV-1997, A. Tanikawa leg., the sources of the Zatsumu River, Kunigami-son; 1 ♀, Benoki Dam, Kunigami-son, 30-III-1997, A. Tanikawa leg.; 2 ♀, Okuni-rindo, Kunigami-son, 30-III-1997, A. Tanikawa leg.; 2 ♀, 31-III-1997, same locality and collector as for the holotype.

*Other specimen.* 1 ♀, near Kosugidani-so, Kamiyaku-cho, Yakushima Is., Kagoshima Pref., 20-V-1973, H. Tanaka leg.

*Distribution.* The Nansei Islands (Yakushima and Okinawa Islands).

*Remarks.* This species resembles *Chrysso punctifera* (Yaginuma 1960) (Figs. 6–8), but is distinguished from the latter by four pairs of black spots on the abdomen, seminal receptacles large and the tarsus of male palpus nearly as long as wide. *C. punctifera* has five pairs of black spots on the abdomen, small seminal receptacles



**Figs. 1–8.** *Chrysso sasakii* new species, ♀ holotype (1–4) and ♂ allotype (5) from Okinawa Is., Okinawa Pref.; and *C. punctifera* (Yaginuma 1960), ♀ ♂ from Mt. Iwawaki, Osaka Pref. (6–8) —1, carapace and abdomen, dorsal view; 2, abdomen, lateral view; 3, 6, epigynum, ventral view; 4, 7, female internal genitalia, dorsal view; 5, 8, male palpus, ventral view. (Scales: 0.5 mm for Figs. 1–2 and 0.1 mm for Figs. 3–8).

and the longer tarsus of male palpus.

*Etymology.* The specific name is dedicated to Mr. Takeshi Sasaki, Okinawa.

*Achaeearanea projectivulva* new species  
(Figs. 9–12)

*Female* (holotype). Body length 2.71 mm. Carapace length 0.87 mm; width 0.79 mm. Abdomen length 1.71 mm; width 1.68 mm; height 2.05 mm. First leg: femur 1.16 mm; patella and tibia 1.11 mm; metatarsus 1.05 mm; tarsus 0.47 mm. Second patella and tibia 0.79 mm; third patella and tibia 0.63 mm; fourth patella and tibia 1.00 mm.

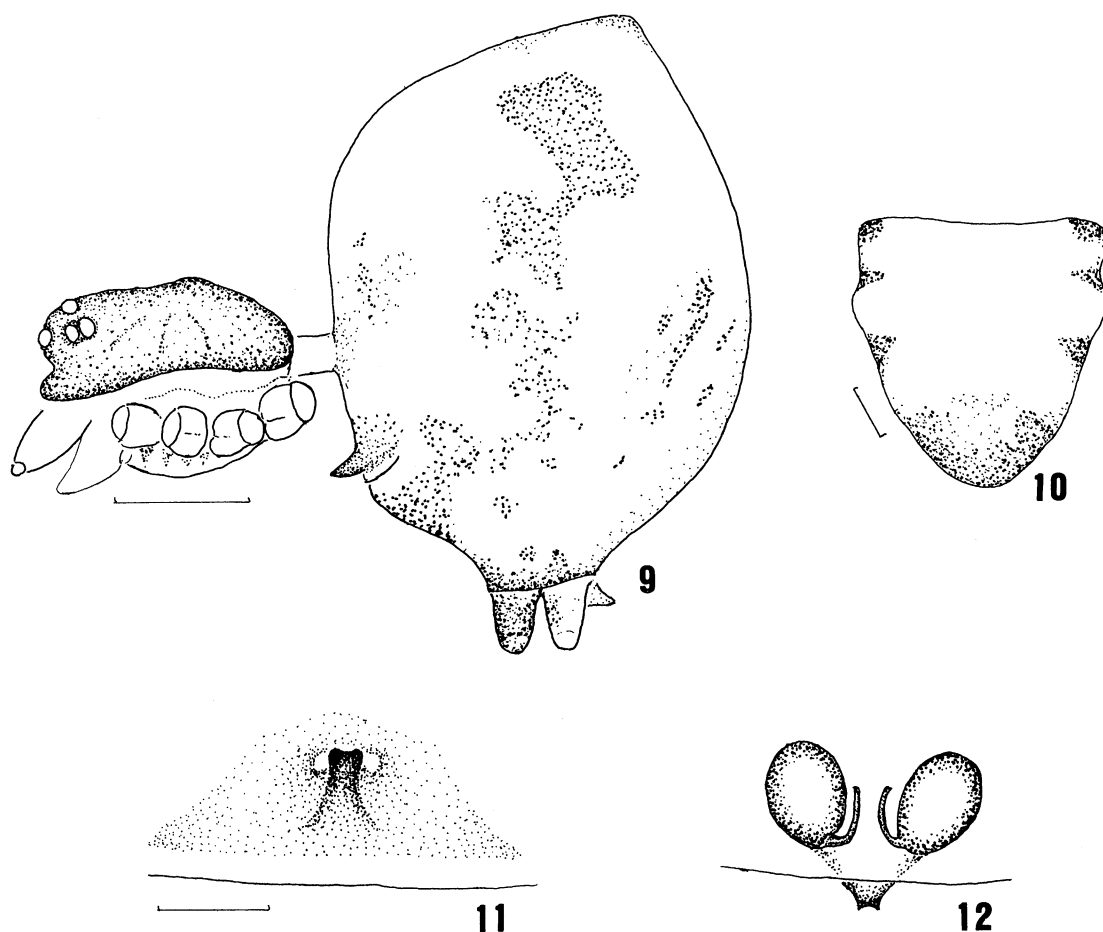
Carapace oval; clypeus concave. Diameter of AME and PME larger than ALE and PLE (6:5). AME their diameter apart and one-third from ALE. PME their diameter apart and two-thirds from PLE. MOA, anterior width:

posterior width: length=9:8:7 in the ratio. Leg formula, 1, 4, 2, 3. Abdomen higher than long, with a small hump on postero-dorsal part (Fig. 9). Genital organ as shown in Figs. 11–12: epigynum with a large postero-ventral projection; openings indistinct; seminal receptacles oval; ducts short.

*Coloration.* Carapace blackish brown. Chelicerae yellowish brown anteriorly with dusky flecks. Maxillae and labium yellowish brown. Sternum yellowish brown with dusky flecks as shown in Fig. 10. Palpus and legs yellowish brown with many dusky bands. Abdomen grayish dusky brown with white pigments and black flecks; venter with large black flecks near the epigynum, and between epigynum and spinnerets. Spinnerets yellowish brown; anterior pairs with large dusky flecks; posterior pairs with small dusky flecks.

*Male.* Unknown.

*Type series.* Holotype: ♀, Morikawa, Nishihara-cho,



**Figs. 9–12.** *Achaeearanea projectivulva* new species, ♀ holotype from Okinawa Is., Okinawa Pref.  
—9, carapace and abdomen, lateral view; 10, sternum, ventral view; 11, epigynum, ventral view; 12, internal genitalia, dorsal view. (Scales: 0.5 mm for Fig. 9 and 0.1 mm for Figs. 10–12).

Nakagami-gun, Okinawa Is., Okinawa Pref., Japan, 28-VII-1999, A. Tanikawa leg. (NSMT-Ar 4552). Paratypes: 2 ♀, same data as for the holotype; 1 ♀, Oyama, Ginowan-shi, Okinawa Is., Okinawa Pref., 28-VII-1999, A. Tanikawa leg.

*Distribution.* Known only from Nishihara-cho and Ginowan-shi, southern area of Okinawa Is.

*Remarks.* The present new species resembles *A. culicivora* (Bösenberg & Strand 1906) (cf. Yoshida 2000, p. 146, figs. 32–36) but is distinguished from the latter by the small size and the epigynum with a large postero-ventral projection.

*Etymology.* The specific name is a Latin after the shape of the epigynum.

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トリノフンダマシはガを誘引しない (pp. 1-4)

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トリノフンダマシ類は, おもにガを捕食することが知られている. これらのクモがナゲナワグモのように特定の雄のガを誘引しているかを確かめるため, クモに捕獲されたガと飛翔中のガを採集し種組成と性比を調べた. 餌となったガはさまざまな種の雌雄から構成されており, 性比は 0.77 で雌に偏っていた. また, 餌となったガと飛翔中のガの性比に違いはみられなかった. したがって, トリノフンダマシ類は特定の雄のガを誘引していないと考えられる.

タニマノドヨウグモの放置網における円網を張るクモ 2 種の盗み寄生的行動 (pp. 5-11)

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タニマノドヨウグモの放置網における円網を張るクモの盗み寄生的行動を調査するため寄主の網にかかる昆虫の数を調べた. アシナガグモ (体長 3-9 mm) とタニマノドヨウグモの幼体 (1-1.5 mm) が早朝に寄主が不在の網に侵入した. 侵入者の盗みによって放置網上の昆虫の数は午前中に急速に減少した. 侵入者の個体数は徐々に増加し, 午後にはそれらのほとんどは放置網の中に小さい網を構築した. 大型の侵入者は小型の侵入者を追い出し, より多くの昆虫を獲得した. 寄主による防衛がないので, 放置網における餌盗みは餌獲得には効果的な戦略かもしれない.

南西諸島産コガネヒメグモ属およびツリガネヒメグモ属 (クモ目: ヒメグモ科) の 2 新種 (pp. 13-16)

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南西諸島産のヒメグモ科の 2 新種を, *Chrysso sasakii* オキナワホシミドリヒメグモ (新称, 沖縄島, 屋久島産) および *Achaearanea projectivulva* トガリヒメグモ (新称, 沖縄島産) の名前で記載した.

韓国より得られた *Dyobelba* 属の 1 新種 (ダニ亜綱: ササラダニ目: ジュズダニ科) (pp. 17-22)

バヤルトグトホ バダムドルジ<sup>1</sup>, 崔 星植<sup>2</sup>, 青木淳一<sup>3</sup> (<sup>1</sup>モンゴル国立大学生物学部動物学研究室; <sup>2</sup>圓光大学校農科大学; <sup>3</sup>神奈川県立生命の星・地球博物館)

韓国より得られた *Dyobelba* 属の 1 新種を記載した. *Dyobelba paucituberculata* sp. nov. は, 次の点によって同属の他種から区別される: 前体部背面隆起 (prodorsal enantiophyses) *B*, *D*, 腹面内隆起 (epimeral and dorsosejugal enantiophyses) *E2*, *V*, および脇突起 (discidium) を完全に欠くこと, 基節板毛の数本 (第 1-第 3 列 *D*, および *4b*) の基部に微小突起を持つこと, 第 IV 脚転節に 2 本の毛を持つこと. *Dyobelba* 属の識別点およびこれまでに知られている本属の分布について記述した.

台湾初記録のカワリアシダカグモ属 (新称), コアシダカグモ属, ミナミアシダカグモ属および 4 新種の記載 (クモ綱: クモ目) (pp. 23-31)

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台湾からアシダカグモ科の 4 新種を以下のように命名して記載した: *Pseudopoda serrata*, *Pseudopoda recta*, *Sinopoda expectata*, *Olios scalptor*. これら 3 属とも台湾から初記録となる. またアシダカグモ *Heteropoda venatoria* (Linné 1767) の 1 採集記録も報告した.

日本産のモリヒメグモ属, ハガタグモ属, カガリグモ属およびオオノヒメグモ属 (クモ目: ヒメグモ科) (pp. 33-51)

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日本産のヒメグモ科モリヒメグモ属, ハガタグモ属, カガリグモ属およびオオノヒメグモ属に検討を加え, これら 4 属に含まれる 17 種に検索表および簡単な記載を与えた. 北海道大雪山高山雪田群落で採集されたモリヒメグモ属の 1 新種 *Robertus yasudai* new species (ヤスダモリヒメグモ, 新称) を記載し, 中国産の *Enoplognatha lordosa* Zhu & Song 1992 (コガタコノハグモ, 新称) を日本から新たに記録した. *Enoplognatha abrupta* (Karsch 1879) new combination (カレハヒメ